

Application No. 09/369,992
Amendment dated February 14, 2005
Response to Office Action of October 13, 2004

Listing of Claims:

1-58. Canceled

59. (New) A method of detecting presence or absence of a *Plasmodium* malarial agent of humans in a biological sample in which the presence or absence of a *Plasmodium* malarial agent of humans is unknown, said method comprising the steps of:

- (a) providing a biological sample, wherein the presence or absence of a *Plasmodium* malarial agent of humans in the biological sample is unknown and wherein the biological sample is from a human or animal which can be infected with a *Plasmodium* malarial agent of humans,
- (b) contacting a nucleic acid probe or primer which hybridizes specifically to the *Plasmodium berghei* extrachromosomal genetic element with said biological sample or contacting the nucleic acid probe or primer with a nucleic acid extracted, purified or amplified from said biological sample, for a time and under conditions sufficient for specific hybridization to occur between the probe or primer and the nucleic acid or sample, wherein the probe or primer consists of nucleotides 1147 to 1740 of SEQ ID NO:1 or of 15 or more consecutive nucleotides thereof, or wherein the probe or primer consists of a nucleotide sequence complementary to nucleotides 1147 to 1740 of SEQ ID NO:1 or 15 or more consecutive nucleotides thereof; and
- (c) detecting said hybridization resulting from the contacting step (b), whereby a *Plasmodium* malarial agent of humans is detected in a biological sample when hybridization of the probe or primer to the sample or to a nucleic acid extracted, purified or amplified from said biological sample is detected and whereby absence of a *Plasmodium* malarial agent of humans is detected when hybridization is not detected.

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60. (New) The method according to claim 59, wherein the contacting step is performed under low stringency hybridization conditions.
61. (New) The method according to claim 59, wherein the contacting step is performed under moderate stringency hybridization conditions.
62. (New) The method according to claim 59, wherein the contacting step is performed under high stringency hybridization conditions.
63. (New) The method according to claim 59, wherein the detecting comprises identifying a signal produced by a reporter molecule bound to the probe or primer, wherein the reporter molecule produces an identifiable signal.
64. (New) The method according to claim 63, wherein the reporter molecule is a radioisotope or a non-isotopic reporter molecule.
65. (New) The method according to claim 64, wherein the non-isotopic reporter molecule is biotin.
66. (New) The method according to claim 59, wherein the detecting comprises a polymerase chain reaction (PCR).
67. (New) The method according to claim 66, wherein the PCR is reverse transcriptase-PCR.

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68. (New) The method of claim 59, wherein the *Plasmodium* malarial agent of humans is selected from the group consisting of *Plasmodium falciparum*, *Plasmodium vivax*, *Plasmodium ovale* and *Plasmodium malariae*.
69. (New) The method of claim 59, wherein the biological sample comprises blood or nucleic acid extracted from said blood.
70. (New) The method of claim 69, wherein said blood is human blood.
71. (New) The method according to claim 69, wherein said biological sample comprises dried blood.